Medi-Cal Management Information
System and Decision Support System (MIS/DSS)

Data Enhancement Functional Specifications

for Episodes of Care

Phase 5

March 23, 2000

1. Overview

Figure 1 gives a high-level view of the major conversion processes and helps illustrate the relationship between the processes. The shaded box represents the conversion process being discussed in this section.

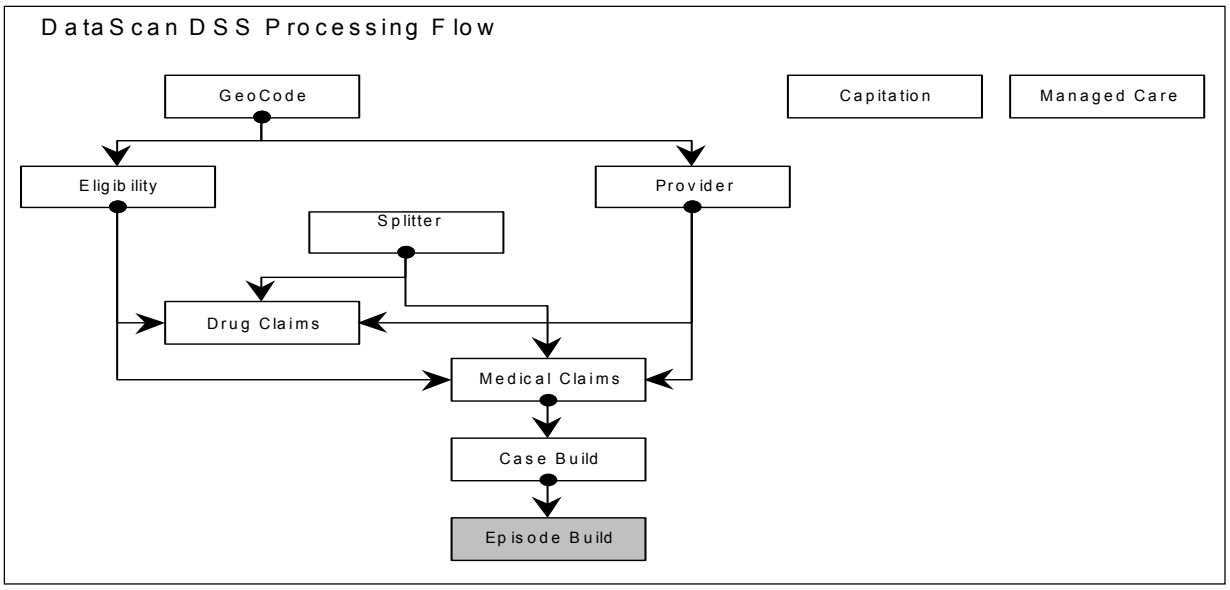

Figure 1: DataScan DSS Process Flow

An Episode of Care is a compilation of logically-grouped healthcare services provided to an individual in order to treat a specific disease process or illness. Episodes of Care include healthcare services that are provided in both inpatient and outpatient settings by one or more providers. In addition to tracking healthcare cost and utilization, Episodes can be used to track disease prevention, health promotion, and disease management.

Inpatient Cases, Outpatient Claims, and Prescription Drug Claims are assigned to an Episode Diagnosis Group. MEDSTAT's Disease Staging methodology is the basis for constructing Episodes of Care. Disease Staging is applied to a patient's Inpatient Cases and Outpatient Claims to determine the patient's Disease Category(s) and severity level, or Stage. The combination of a Disease Category and Stage determine the Episode Diagnosis Group to which the Case or Outpatient Service is assigned. The NDC determines the Episode Diagnosis Group to which a Prescription Drug Claim will be assigned.

An Episode begins with an inpatient stay or outpatient visit and ends when an absence of services or "clean period" is detected. The clean period is the number of days without treatment (see Figure 2). The clean period for each Episode is clinically-defined and empirically-tested. Chronic conditions are continuous over 12-month periods.

Advantages of MEDSTAT's methodologies include :

- Episodes are created with clinically-meaningful subtypes, such as acute, chronic, progressive, maintenance and preventive care.
- Instead of basing Episodes on fixed time periods, Episodes are constructed based on clinical information specific to the condition or disease.
- Episodes can be created from healthcare claims and clinical sources of data (such as lab test results).
- Disease severity is not based on the utilization or consumption of services. Each Episode created is based on Disease Staging and the severity is driven by diagnostic categories only.
- Episode Comorbidity allows users to control for the effect of comorbidities on total cost and utilization.
- The Episode "Look Back" capability allows the Episode Build to include diagnostic tests that occurred before the Episode began.
- An Episode Summary Category is assigned to each Episode. This provides additional analytical power by providing the ability to report on Episodes at a higher level (approximately 200 categories) as opposed to the very detailed 600+ clinically homogeneous Episode Diagnosis Groups.

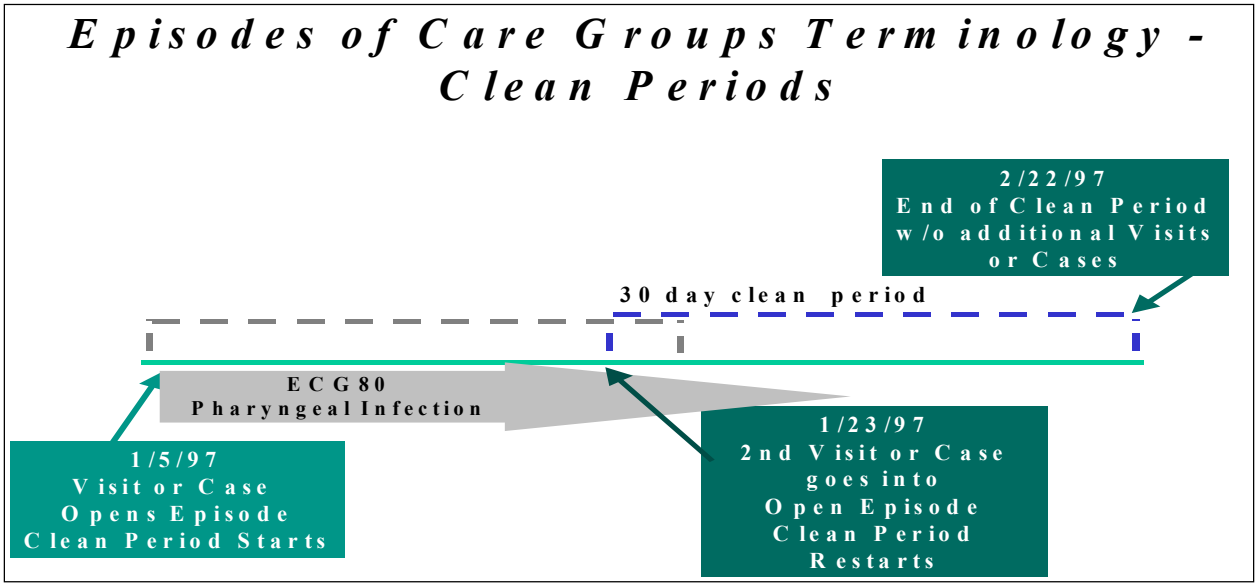

Figure 2: Clean Periods for Episodes

2. Prerequisites / Pre-Conversion

The following must be completed before the Episode Build:

- Case Build
- Loading of Drug, IP and OP Service Tables

3. Indexes

The Database index for the Episode Table will be as follows:

- Primary: PRODUCT, ELIGCAT, NETWORK, ELIGCNTY, EMPID
- Secondary2: EMPID, MEMBERNO
- Secondary3: EPIID

4. Input Data

- Outpatient Table Rows, Inpatient Case Rows, and Prescription Drug Rows, as well as the existing Episode Table (for updates) go into the Episode Build. For updates, the Outpatient claims must have a diagnosis code. Existing records more than 18 months old not previously assigned to an Episode are not extracted.

- Episode Build creates and reads an Episode Driver File by extracting all unique patient IDs from the OP_CLAIM1-4, IP_CASE, and Prescription Drug Tables.

5. Output Data

- The Episodes of Care Table. This table contains aggregated information for Episodes. See Field-level Specifications for a list of the fields included in this table.
- The IP Case Table, four OP Service Tables, and Prescription Drug Table are updated with Episode IDs on all records included in an Episode.

6. Reports

The reports produced by the Episode Build include:

- Data Quality Indicators
- History Rolloff

7. Selection / Drop Criteria

Lab and radiology services cannot initiate an Episode.

If the Principal Disease Category (PDXCAT) is not on the Episode Definition Table (EPIS_DEF) or if the aggregate does not have a PDXCAT and STAGE, the aggregate is not assigned an Episode Diagnosis Group (EPIDXGRP).

An Episode is deconstructed if:

- Total Charge Amount (TOT_CHG_AMT) is less than zero
  Note: If the Charge Amount (CHG_AMT) from Prescription Drugs causes the Total Charge Amount to be less than zero, the Episode will not deconstruct. Since a Drug claim cannot start an Episode, it cannot deconstruct an Episode
- Physician Charge Amount (PHYS_CHG_AMT) is less than zero
- Physician Pay Amount (PHYS_PAY_AMT) is less than zero
- Total Payment Amount (TOT_PAY_AMT) is less than EPISODE_MIN_PAY on the DB_DEF Table (Set to 0 for Medi-Cal)
  Note: If the Payment Amount (PAY_AMT) from Prescription Drugs causes the Total Payment Amount to be less than zero, the Episode will not deconstruct. Since a Drug claim cannot start an Episode, it cannot deconstruct an Episode
- Total number of OP Claims is less than EPISODE_MIN_CLMS on the DB_DEF Table (Set to 2 for Medi-Cal) and no Cases exist for that Episode
- An Episode that is partially rolled off cannot be rebuilt. The Episode would remain "frozen" – no new cases or claims can be added.